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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,713	07/07/2000	GLENN NORMAN DICKINS	LAKE012	7553

21921 7590 08/04/2005

DOV ROSENFELD  
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SUITE 2  
OAKLAND, CA 94618

EXAMINER
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LEE, PING

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/508,713

Applicant(s)

DICKINS ET AL.

Examiner

Ping Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-51 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 7/6/05
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the telephone interview conducted on 7/8/05, the previous office action mailed on 7/1/05 has been vacated. A new restriction requirement is listed below.

#### ***Election/Restrictions***

2. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species I shown in Figs. 3 and 4;

Species II shown in Figs. 3 and 5;

Species III shown in Figs. 3 and 6;

Species IV shown in Figs. 7 and 8;

Species V shown in Figs. 7 and 9;

Species VI shown in Fig. 17;

Species VII shown in Figs. 16, 18 and 19;

Species VIII shown in Figs. 16, 18 and 20;

Species IX shown in Figs. 18 and 21; and

Species X shown in Figs. 18 and 22.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims

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subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

3. The claims are deemed to correspond to the species listed above in the following manner:

Claims 1-5, 7-12, 20 and 36-49 correspond to species I;  
Claims 1-4, 6, 13-17, 20 and 43-49 correspond to species II;  
Claims 1-4, 18, 19 and 43-49 correspond to species III;  
Claims 1-4, 6, 13, 14, 16, 17, 20-23, 30 and 43-49 correspond to species IV;  
Claims 1-4, 18-30 and 43-51 correspond to species V;  
Claims 31-33 correspond to species VII;  
Claims 31, 32 and 34 correspond to species IX; and  
Claims 31, 32, 34 and 35 correspond to species X.

The following claim(s) are generic: no claim is generic.

4. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the special technical feature of species I invention is the particular for the AC-3 inputs in combination with a first mixing matrix means, a filter system and a second mixing matrix means claimed therein

5. while the special technical feature of the species II invention is the particular of stereo inputs in combination with a first mixing matrix means, a filter system and a second mixing matrix means claimed therein

6. while the special technical feature of the species III invention is the particular of surround sound signals with anti-phase HRTF for the sum and difference signals among the surround sound signals claimed therein

7. while the special technical feature of species IV is the particular of a first mixing matrix interconnected to the stereo inputs and a series of feedback inputs from a filter system claimed therein

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8. while the special technical feature of the species V is the particular of mixing the feedback signal from a filter system with the frontal portions of surround audio inputs to the reverberation part of the response is weighted toward the front of the listener claimed therein

9. while the special technical feature of the species VII is the particular of a recursive filter structure has a longer reverberation decay time than a second recursive filter structure as claimed therein

10. while the special technical feature of species IX is the particular of a series of recursive filter structures interconnected to sum and difference filters;

11. while the special technical feature of species X is the particular of a portion of the output from one of FIR filters is fed back to the input of one of at least one of the recursive filter structures.

12. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

13. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

14. In view of the telephone interview conducted on 7/8/05, the previous office action mailed on 7/1/05 has been vacated. A new restriction requirement is listed below.

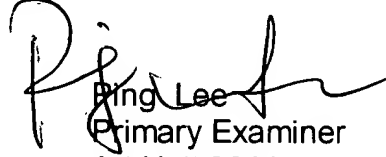
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ping Lee  
Primary Examiner  
Art Unit 2644

pwl